



NURSERY & LANDSCAPE CDE

PURPOSE

The purpose of the Nursery and Landscape Career Development Event is to promote career interest, encourage proficiency development and recognize excellence in participants of the event which includes all aspects of the industry to produce, market, utilize and maintain landscape plants (woody and herbaceous plants and turf grasses), as well as related production and landscaping products, equipment and services including design.

ELIGIBILITY

The participant must be an active member of a chartered Florida FFA chapter in grades 9, 10, 11, or 12. Each chapter may enter one team.

EVENT PROCEDURES

The event will be a team event consisting of four students. Only the top three scores will be calculated for the team total. A team may compete with less than four members. FFA members are to wear OUTDOOR FFA Official Dress, and will be scored accordingly.

No FFA advisors/coaches will be allowed in the area of the contest, but arrangements will be made to view the specimens directly following the last rotation.

PRACTICUMS

Each year, four practicums will be selected. The four to be used will be identified by the CDE superintendent and teams will be notified prior to the event.

EVENT MATERIALS

MATERIALS STUDENTS MUST PROVIDE:

- Pencils
- Clipboard
- Electronic calculator (if needed) - standard four function, battery operated, non-programmable

Any other materials required for the event will be provided.

INDIVIDUAL PRACTICUMS

IDENTIFICATION PRACTICUM

PLANT, PEST & TOOL IDENTIFICATION

Sixty specimen from the Nursery & Landscape Plant, Pest and Equipment Identification List will be displayed for participants to identify by technical and common names. Participants will identify 30 plants, 15 Pests and 15 pieces of equipment. Each specimen is worth 10 points. A number will designate each specimen. Specimens may presented either in live form or as a picture. Each participant will be allowed 25 minutes to complete this phase of the event.

PROBLEM SOLVING PRACTICUMS

SALESMANSHIP

Participants will assume the role of a sales person, merchandising or marketing professional in a nursery and/or landscape business (nursery grower, landscape professional, garden center, etc.) They could be asked to create or evaluate advertising in either print or social media or to create or evaluate store displays. Situations may also be presented where the participants must assist a customer. Each participant will be allowed 25 minutes to complete this phase of the event.

- Media Selling
- Store displays
- Customer service

COMMUNICATION

Participants will be presented with situations in one of the categories below. They will be asked questions on how to react or perform when dealing with people within a nursery and/or landscape business. Each participant will be allowed 25 minutes to complete this phase of the event.

- Job Interview
- People Management
- Time Management

CHEMICAL HANDLING

Participants must be familiar Green Industries Best Management Practices (GI-BMPs) as it relates to the safe use of pesticides and/or fertilizers. Participants will be asked to either demonstrate or explain chemical handling procedures, equipment calibration or application. Each participant will be allowed 25 minutes to complete this phase of the event.

- Pesticides
- Fertilization

PROBLEM SOLVING/DECISION MAKING

Participants will solve problems related to various aspects of the nursery and landscape industry. Each problem will describe the situation or create the problem and will provide a list of possible solutions. Participants must choose the best solution. Topics could range from safe procedures to pest management to business issues. Each participant will be allowed 25 minutes to complete this phase of the event.

SKILLS PRACTICUMS

LANDSCAPE ESTIMATING

Participants will be asked to evaluate a landscape plan. It may include photos of the landscaped site or take place outside at the landscaped site. This practicum is designed to evaluate the participant's ability to read a landscape plan, determine the needed materials, create a bid for installation or estimate maintenance costs. Each participant will be allowed 25 minutes to complete this phase of the event.

- Installation
- Maintenance



PRODUCTION

Participants will be asked to complete one of the following activities, using the materials provided. Scoring is based on the procedures followed, safe practices and the ability to follow the directions of the event leaders. Each participant will be allowed 25 minutes to complete this phase of the event.

- Propagating Nursery Stock
- Potting Nursery Stock

COMBINED PRACTICUMS - SKILL & PROBLEM SOLVING

EQUIPMENT

Participants must be familiar with the safe operation of common nursery and landscape industry equipment. Safety is the key word for this event. The type of equipment will be announced prior to the event. Participants will be provided with users' manuals and will be asked to demonstrate or explain specific tasks, as listed below. Each participant will be allowed 25 minutes to complete this phase of the event.

- Specifications of the Equipment
- Pre-Check / Safety Evaluation
- Equipment Operations
- Lawn Care Procedures

PLANT SOIL WATER RELATIONSHIPS

Participants will be asked to demonstrate an understanding of the relationship between soil, air and water through hands-on activities or written descriptions. Possible categories are listed below. Each participant will be allowed 25 minutes to complete this phase of the event.

- Irrigation
- Water Quality
- Soils

QUALITY CONTROL

Participants will be asked to evaluate plant material quality utilizing Florida Grades and Standards for Nursery Stock. This even may also include recommending corrective methods utilizing pruning. Knowledge of pruning tools, pruning techniques and parts of a tree are included.. Each participant will be allowed 25 minutes to complete this phase of the event.

- Grades & Standards
- Pruning

SCORING

Practicum	Activity	Individual	Team
Identification	Plants	300	900
Identification	Pests	150	450
Identification	Equipment	150	450
Problem Solving and Skills	Four rotational practicums	200 each/ 800 total	2,400
Official Dress		50	150
Total		1,450	4,350

TIE BREAKERS

In the event of a tie in individualized scores, the following events will be used in order to determine award recipients:

INDIVIDUAL

1. Identification Scores
2. Single Practicum Score (selected by CDE superintendent)



TEAM

In the event of a tie in team scores, the following events will be used in order to determine award recipients:

1. Drop Score
2. Total identification score
3. Total score for a single practicum (selected by the CDE superintendent)

AWARDS

Awards will be presented during a designated session at the annual State FFA Convention and Expo.

Awards will be presented to the top five teams as well as the overall high individual based upon their rankings. Awards are sponsored by a cooperating industry sponsor(s) as a special project and/or by the general fund of the Florida FFA Foundation.

REFERENCES

This list of references is not intended to be inclusive. Other sources may be utilized and teachers are encouraged to make use of the very best instructional materials available. The following list contains references that may prove helpful during event preparation. Previous event materials may be available on the Florida FFA Website.

- FNGLA Certified Horticulture Professional Manual, 8th Edition 2010. Florida Nursery Growers and Landscape Association, 1533 Park Center Drive, Orlando, FL 32835, 800-375-3642 or www.fn gla.org
- The Florida Yards & Neighborhoods Handbook, 2009. Florida Yards & Neighborhoods, University of Florida, Institute of Food and Agricultural Sciences (UF/IFAS), Environmental Horticulture Dept., P.O. Box 110675, Gainesville, FL 32611-0675, 352-273-4518 <http://ffl.ifas.ufl.edu/materials/FYN-Handbook-v1-2012.pdf>
- Florida Friendly Best Management Practices for Protection of Water Resources in Florida by the Green Industries, 2008. Florida Department of Environmental Protection Nonpoint Source Management Section, 850- 245-7508 http://fyn.ifas.ufl.edu/pdf/GIBMP_Manual_WEB_2_17_11.pdf
- Water Quality/Quantity Best Management Practices for Florida Nurseries, 2014. Florida Department of Agriculture & Consumer Services, Tallahassee, Fla. 850-617-1700 <http://www.freshfromflorida.com/content/download/37570/848371/NurseryBMP.pdf>
- Florida Grades and Standard for Nursery Plants. Florida Department of Agriculture & Consumer Services, Tallahassee, Fla. 1-888-397-1517 <http://www.freshfromflorida.com/Divisions-Offices/Plant-Industry/Plant-Industry-Publications>
- American Standard for Nursery Stock. ANSI Z60.1–2004, copyright 2004 ISBN 1-890148-06-7. American Nursery and Landscape Association (Now American Hort) at 614-487-1117 http://americanhort.org/documents/nursery_stock_standards_AmericanHort_2004.pdf
- Landscape Plants powerpoints website by University of Florida's Dr. Ed Gilman <http://hort.ifas.ufl.edu/woody/powerpoints.shtml>

IDENTIFICATION SPECIMEN LIST

PLANT	
SCIENTIFIC NAME	COMMON NAME
<i>Abelia x grandiflora</i>	Glossy Abelia
<i>Acalypha wilkesiana</i>	Copperleaf
<i>Acca sellowiana</i>	Pineapple Guava / Feijoa
<i>Acer rubrum</i>	Red Maple
<i>Ajuga reptans</i>	Bugleweed
<i>Allamanda cathartica</i>	Allamanda
<i>Antirrhinum majus</i>	Snapdragon
<i>Begonia semperflorens-cultorum</i>	Wax Begonia
<i>Betula nigra</i>	River Birch
<i>Bismarckia nobilis</i>	Bismarck Palm
<i>Bougainvillea</i> spp.	Bougainvillea
<i>Breynia disticha</i>	Snowbush
<i>Buxus microphylla</i>	Boxwood
<i>Caladium x hortulanum</i>	Caladium
<i>Camellia japonica</i>	Common camellia
<i>Cercis Canadensis</i>	Eastern Redbud
<i>Chamaerops humilis</i>	European Fan Palm
<i>Chrysobalanus icaco</i>	Cocoplum
<i>Chrysophyllum oliviforme</i>	Satinleaf
<i>Coccoloba uvifera</i>	Sea Grape
<i>Codiaeum variegatum</i>	Croton
<i>Conocarpus erectus</i> var. <i>sericeus</i>	Silver Buttonwood
<i>Cornus florida</i>	Flowering Dogwood
<i>Cuphea hyssopifolia</i>	False Heather
<i>Cupressocyparis leylandii</i>	Leyland Cypress
<i>Cycas</i> spp.	Sago Palm
<i>Cynodon dactylon</i>	Bermuda Grass
<i>Cyrtomium falcatum</i>	Holly Fern
<i>Eremochloa ophiuroides</i>	Centipedegrass
<i>Eriobotrya japonica</i>	Loquat
<i>Euphorbia milii</i>	Crown of Thorns
<i>Ficus benjamina</i>	Benjamin Fig
<i>Ficus elastica</i> 'Decora'	Indian Rubber Plant
<i>Gardenia augusta</i>	Gardenia
<i>Gelsemium sempervirens</i>	Carolina Yellow Jasmine
<i>Gordonia lasianthus</i>	Loblolly Bay
<i>Hedera helix</i> cv.	English Ivy
<i>Hemerocallis</i> spp.	Day Lily
<i>Hibiscus rosa-sinensis</i>	Hibiscus
<i>Hydrangea quercifolia</i>	Oakleaf Hydrangea

<i>Ilex cornuta</i> 'Burfordii Nana'	Dwarf Burford Holly
<i>Ilex vomitoria</i> 'Nana'	Dwarf Yaupon Holly
<i>Ilex x attenuate</i> 'East Palatka'	East Palatka Holly
<i>Illicium parviflorum</i>	Ocala Anise
<i>Illicium floridanum</i>	Florida Anise
<i>Juniperus chinensis</i> 'Torulosa'	Hollywood Juniper
<i>Juniperus conferta</i>	Blue Pacific Juniper
<i>Juniperus davurica</i> 'Parsonii'	Parsoni Juniper
<i>Juniperus horizontalis</i>	Creeping Juniper
<i>Juniperus virginiana</i>	Southern Red Cedar
<i>Lagerstroemia indica</i>	Crape Myrtle
<i>Ligustrum japonicum</i>	Japanese Privet
<i>Liquidambar styraciflua</i>	Sweetgum
<i>Liriope muscari</i>	Liriope
<i>Magnolia grandiflora</i>	Southern Magnolia
<i>Mangifera indica</i>	Mango
<i>Melaleuca viminalis</i>	Weeping Bottlebrush
<i>Muhlenbergia capillaris</i>	Muhly Grass
<i>Myrica cerifera</i>	Wax Myrtle
<i>Nandina domestica</i> 'Firepower'	Dwarf Nandina
<i>Nerium oleander</i>	Oleander
<i>Paspalum notatum</i>	Bahiagrass
<i>Pelargonium x hortorum</i>	Geranium
<i>Pennisetum ruppelia</i>	Fountain Grass
<i>Petunia x hybrida</i> cv.	Petunia
<i>Philodendron scandens oxycardium</i>	Heartleaf Philodendron
<i>Phoenix canariensis</i>	Canary Island Date Palm
<i>Pinus elliotii</i>	Slash Pine
<i>Pittosporum tobira</i>	Japanese Pittosporum
<i>Plantanus occidentalis</i>	Sycamore
<i>Plumbago auriculata</i>	Plumbago
<i>Plumeria rubra</i>	Frangipani
<i>Podocarpus macrophyllus</i>	Yew Podocarpus
<i>Pyracantha coccinea</i>	Red Firethorn
<i>Quercus virginiana</i>	Live Oak
<i>Raphiolepis indica</i>	Indian Hawthorne
<i>Rhododendron</i> spp.	Azalea
<i>Rosa</i> spp.	Landscape Rose
<i>Sabal palmetto</i>	Cabbage Palm
<i>Serenoa repens</i>	Saw Palmetto
<i>Solenostemon scutellariodes</i>	Coleus
<i>Spiraea cantoniensis</i>	Bridal Wreath Spirea
<i>Stenotaphrum secundatum</i>	St. Augustine Grass

Swietenia mahagoni	Mahogany
Syagrus romanzoffiana	Queen Palm
Tagetes spp.	Marigold
Taxodium distichum	Bald Cypress
Tibouchina urvilleana	Princess Flower
Trachelosperum asiaticum	Asian Jasmine
Trachelosperum jasminoides	Confederate Jasmine
Tripsacum floridana	Dwarf Fakahatchee Grass
Tulbaghia violacea	Society Garlic
Ulmus parvifolia 'Drake'	Drake Elm
Verbena x hybrida	Verbena
Viburnum odoratissimum	Sweet Viburnum
Viburnum suspensum	Sandankwa Viburnum
Vinca major	Periwinkle
Viola x wittrockiana cv.	Pansy
Washingtonia robusta	Washington Palm
Zamia pumila	Coontie
Zoysia spp.	Zoysiagrass

PESTS, DISORDERS, & BENEFICIAL INSECTS

BENEFICIAL INSECTS

Assassin Bug

Lace Wing

Lady Beetle

Parasitic Wasp

Praying Mantid

Spider

DISEASES

Cutworms

Blight

Canker

Dampening Off

Dollar Spot of Turf

Fairy Ring

Fusarium Wilt

Galls

Ganoderma Butt Rot

Leaf Spot

Lethal Yellowing

Powdery Mildew

Root Rot

Rust

Sooty Mold

INSECTS

Aphid

Ant

Armyworm

Bagworm

Beetle

Borer

Chinch Bug

Cutworms

Earwig

Eastern Tent Caterpillar

Grasshopper

Ground Pearls

Hunting Billbug

Lacebug

Leaf Hopper

Leafminer

Mealybug

Mole Cricket

Oleander Caterpillar

Palmetto Weevil

Root Knot Nematode

Scale

Snails or Slugs

Sod Webworm

Spider Mite

Spittle Bug

Stink Bug

Thrips

White Fly

White Grub

PHYSIOLOGICAL PROBLEMS

Frost Damage

Iron Deficiency

Magnesium Deficiency

Nitrogen Deficiency

Sunburn

WEEDS

Crabgrass

Dandelion

Dollar Weed

Florida Pusley

Nutsedge

Oxalis

Spruce

Virginia Creeper

EQUIPMENT & SUPPLIES

Anvil-and-blade pruner

Architects scale

Auger (gas-planting/earth/soil)

Back back sprayer

Ball cart (B&B truck)

Bow saw

Broadcast (cyclone) spreader

Bubbler head, irrigation

Burlap

Chain saw

Chaps

Compressed air sprayer

Drip emitter, irrigation

Dust mask

Edger

Edging

Engineers scale

Erosion netting

Fertilizer injector

Fertilizer label

Fertilizer tablet

Frost cloth

Garden (spading) fork

Garden rake

Grafting band

Grafting tool

Granular fertilizer

Gravity (drop) spreader

Hearing protection

Hedge shears

Hoe

Hook-and-blade pruners

Hose-end repair fitting

Hose-end sprayer

Hose-end washer

Hose repair coupling

Impact sprinkler

Inverted paint marker

Landscape fabric

Leaf rake

Loppers

Measuring wheel

Mist nozzle (mist bed)

Mower blade balancer

MSDS sheet

Mulch

Nursery containers

Oscillating sprinkler

Peat moss

Perlite

pH tester

Pole pruner

Polyethylene film

Polyethylene pipe

Pony shovel

Pop-up irrigation head

Posthole digger

Power blower

Power hedge trimmers

Propagation mat

Pruning saw

Pump sprayer

PVC (polyvinylchloride) pipe

Rain sensor

Reel mower

Resin-coated fertilizer

Respirator

Rotary mower

Rototiller

Round point shovel

Safety goggles

Scoop shovel

Shade fabric

Sharpening stone

Siphon proportioner

Soaker hose

Soil sampling tube

Solenoid valve

Spade

Sphagnum moss

Spray suit

Square point (flat) shovel

String trimmer

Thatch rake

Tie down straps

Tree caliper

Tree sling

Tree wrap

Trowel

Verticut mower

Water breaker